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FlyingAVA Tech. Pvt. Ltd.

FLYINGAVA TECH PVT LTD

Dream Higher Fly Higher

Introduction

- Startup Name: FLYINGAVA TECH PVT LTD
- Headquarters: Kanpur, Uttar Pradesh
- Founded In: 15th April 2022
- Target Audience: Farmers in high-altitude disaster-prone areas, remote regions with poor road connectivity, border areas and logistic businesses such as DTDC, Amazon, FedEx ,UPS and so on.
- Team Size: Team of 10 members (Including Professors, Engineers and staff)
- StartUp website URL: https://www.flyingava.com
- Startup product/service related video URL

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https://www.flyingava.com

Focus Area

To provide logistical support in a distant, disaster-prone environment for people and businesses involved in agriculture.

Founded In

2022

Location

Aerospace Engineering ,IIT Kanpur

Problem Statement

in order to assist Agriculture in remote places where logistics are always a challenge . We are attempting to create drone technology with higher load bearing capacity & flight of 30 minutes .

Tech Brief

The drone tech will be able to lift the load of 100 kg payload and will be able to choose itself the best route between source and destination from point A to B using Ai.

Unique Selling Proposition

- It will have 100 kg payload bearing ability
- It will work in disaster prone areas with flight time of minimum 30 minute at expected speed of 100 km/Hr
- It will have Route identification and remembering Technology

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UNITS SOLD

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KEY FIGURE

000
CUSTOMERS

000
KEY FIGURE

Technology Detail

What is the USP/ Novelty of the solution / product / service?

USP is It will have minimum 100 kg payload carrying ability. It will work in disaster prone areas effectively with flight time of minimum 30 minute at expected speed of 100 km/Hr. It will have Route identification and remembering Technology.

- **What key products or services are being offered by the company?**

Key products are Wind tunnels, Water tunnel and drone design assistance and support to all institutions and research facility for aerospace and non aero projects .We are also in crop improvement research with our image processing tech experts

What is the Stage of development of technology / product ?

The patent For drone design after ,CAD Design along with FEM is filed, Key Items for Procurements are identified and a trial for structure of glass fiber and carbon fiber is completed.

- **Have you validated the technology or product?**

We are in trial stage of testing of key parts like structure design, Motor identification for load bearing capacity and battery size selection and its charging time period.

- **Have you done Field trials / Pilot testing (Yes/No)**

  No, We are in initial stage and fund raising stage.

- **Number of Field trials conducted / sample tested -** Nil.
- **What is the Production Status? Do you have your own production facility?**
- We have used IIT Kanpur lab for developing GFRP and CFRP samples to check the load bearing ability for drone structure
- **Product Demo Link (one minute video of product/ technology ready to showing the demo of the product)**

Intellectual Property Rights

- **Give details of the Intellectual Patent Protection Status of your product/ service/ technology.**

We have filed the patent of our design explaining its working strategy step by step.

What is your IP strategy

IP strategy is to keep the technology safe using NDA agreement with the vendors and consultants.

- **Have you filed for any patent for your technology/ product/services (Yes/No), If Yes, then please provide details**

Yes we have filed the patent , Patent name “SYSTEM AND METHOD FOR LOAD TRANSPORTATION”.

- **No. of Patent/ trademark/Copyright/ Design filed and their number**

One patent of complete design and working strategy of load transportation. Application Details are following

Sr. No.	App. Number	Ref. No./Application No.	Amount Paid	C.B.R. No.	Form Name	Remarks
1	202311030415	E-137/5866/2023/DEL	0		FORM 30/S7(2)/ R10	EntryNumber:137

- **Would you require support in IP Services from Pusa Krishi (Yes/No). Please specify your requirement .**

Patent is filed so no need for IP support from Pusa Krishi right now.

Competition Analysis

- **Who are your major competitors?**

Major competitors is a Chinese firm named as E-Hung ,a passenger drone firm .

- **How are you different from the competitors?**

We simply design for logistical support so that danger factors are reduced, which is the main difference between our concept and that of E-hung, a business that makes passenger drones. The second difference is that we are an Indian firm dedicated to business ethics. As a consequence, before releasing our prototype, we will be granted IITs approval as being 100% risk-free.

- **What are alternative solution to your technology/ product/ services ?**

Road and train transit are alternatives to our suggested method, but as we already know, our objective is to explore possibilities using artificial intelligence in order to conserve time, energy, and human labor yet still offering effective relief to disaster-prone locations.

Marketing

- **What is your marketing strategy & approach?**

With our sister company Ava Technology in Sydney, we are targeting farmers and businesses in both India and Australia. Our region will be rural, mountainous locations where poor road connection results from extreme weather. The goal of the market strategy is to develop the product, show it to customers both online and in person, and solicit feedback through public and private investor platforms like "Pusa Krishi."also collaborate with various businesses, like we did with an Australian company.

- **As we know Our design has a Hugh market**

Drones with Ai are providing solutions in various fields, Reducing carbon content and saving lives of lot of business .farmers are backbone of country and lots of companies dealing with logistic are there are not able to connect to rural areas due to lack of connectivity

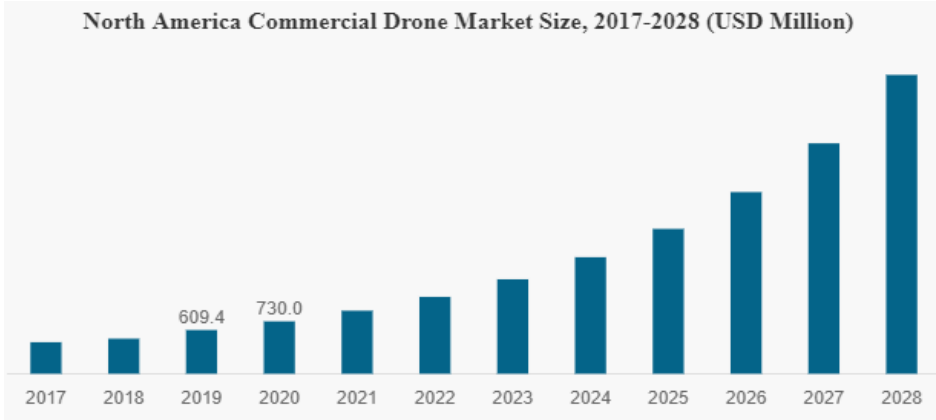
What marketing tools and channels are used by the company?

We have teamed with an Austrian firm to target farmers and businesses in Australia. In particular, we will target logistic enterprises and deliver real demonstrations to them, explaining the areas that need to be addressed and how their business will expand.

Marketing

What is the total size of the market for the Innovation/ technology in terms Rs. ?

- The market is broken down into three distinct categories of hardware, software, and services and presented across 6 regions (Asia, Europe, North America, MEA, South America, Oceania) including 62 countries
- The North American market is currently the largest regional drone market, but the Asian one is growing at a much higher rate and expected to take over by the end of this year. Having legalize drones in December 2018, India will be by far the fastest growing commercial drone market in the world, by 2024 becoming the 3rd largest commercial drone market. The new Drone Readiness Index (DRI) provides a comparative overview of drone regulations across the globe, followed by a deep dive into 20 national legislations.
- Service is and will continue to be the largest segment of the drone industry, but software is the fastest growing.
- In term of rupees only North America sold 730 million USD Drone in 2020 (not military)



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Marketing

- **What are the barriers to building and scaling the eco-system required?**

The main obstacle will be to raise awareness of the regular harm that climate conditions inflict. The challenge is to get the general public to recognize on a basic level how bad climate change is for agriculture and to get them to think different. The challenge will be to make business, common farmers, and landowners to adopt technology and participate in the ecosystem. The challenge for businesses like our own remains to raise their initial funding. Additionally, expanding the firm would call for additional trustworthy partners, which can be pretty difficult in today's world.

on positive note ,Individuals who often encounter problems are more likely to acquire the solutions quickly. We will be explaining to individuals the difficulties they encounter with regard to road connection , and the usage of conventional fuels.

What are the challenges you face & future plan

- Initial Challenges were to built a team to and convince the team about idea and that we did. But basic challenges as in India is to primary support of investment .
- Future plan will be to apply for grants and angel investors .and to raise funds.

Customers

- **Who are the Company's Target Customers?**

Companies target will be farmers in rural areas and providing them logistic support to transport their loads to ware houses . We can also partner with following logistic firms to transport alternatives

- **Number of Paid Customers**

Zero as we are in early stage.

- **Through which channels do you acquire customer?**

By partnership through existing logistic firms.

- **How often do you take feedback from customers?**

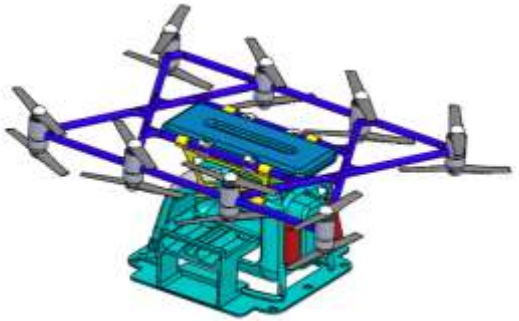
We have worked in areas were farmers face real issues and we want to provide relief to them. We have also talked to farmers in Australia and they would like a similar solution.

- **Has there been any deviation in your marketing plan due to these Customer Feedback**

Yes we did ,localities were concern about training about drone operations that's why we decided to use Ai for landing ,self choosing path and self charging stations parts.

- **What are the challenges you face & future plan**
- Challenges include convincing more people about carbon content, the use of technology, and the signing of a Memorandum of Understanding (MOU) for the same, as well as funds raising.

Cost Structure



- **What is the per unit production cost & selling Cost?**

Unit cost will be **25 lakhs** and selling cost will be **40 lakhs**

Components of Drone

- Structure
- Propellers
- Motors
- Electronic Speed Controller
- Flight Controller boards
- Radio Transmitter/controller
- Battery ,Electronic and Power Distribution Cables
- Cameras
- Position sensor, GPS, Accelerometers ,weather Sensors ,software
- Landing gear

No.	Heads
1.	Drone components made of glass fiber, carbon fiber and aluminum-6067 structure cost around =**5 lakhs**
2.	Motors and controllers around =**5 lakhs**
3.	Software and a battery equipment's around=**5 lakhs**
4.	Camera and other sensors around =**3 lakhs**
5	**Testing and manpower support =7 lakhs**
6	**Total Cost= 25 lakhs**

Cost Structure

- **What are the most important costs inherent in business model (office space, management salaries, telecom, technology, marketing and sales, etc.)?**

The cots things have the highest cost. Currently, we also offer consulting services for R&D projects involving aerospace and military companies, which is how we generate the money we need to survive. Additionally, we compensate our partners on an hourly basis. With the assistance of the lecturers, we utilize the IIT Kanpur facilities. We are now qualified to seek for a larger location at the IIT Kanpur Innovation Centre because we recently applied for a patent.

Where is the scope for improvement?

The marketing plan and design are constantly up for improvement. We'll be focusing more on utilizing Ai and sensor to improve our design more functional and simple to use. We want to expand our design and marketing strategy teams.

Sales

- **What is the company's sales currently?**

We are in development stage .

- **How many units are sold till now?**

We are in development stage .

- **What is the sales & distribution channels being adopted by you?**

Online marketing, presentation, and consulting services are offered with leading aerospace businesses like National Instruments and TSI-India, HAL Kanpur and defense firms like MKU Limited.

Partners

In this slide, give details on:

- **Who are company's key partners?**

AVA Technology is an Australian company situated in Sydney, and its founder is also a co-founder of FlyingAVA Tech Pvt. Ltd..

Who are company's key suppliers?
PCB power, Robu.in ,Carbon fiber supplier glass fiber suppliers (India Mart) and IIT -Kanpur local suppliers. Aluminum suppliers local

- **Any MoU signed with external partners?**

Yes Memorandum of understanding is signed between FlyingAVA Tech Pvt. Ltd, India and Ava Technology Sydney.

Funding Requirement & Sources

- **What is the working capital requirement?**

25 lakhs for initial prototype for rural areas and another 25 lakhs for next stage design for urban areas .

- **Did you raise any grant? : Yes/No**

No ,this our first presentation as recently we applied for Patent

- **Amount of the grant raised (In Lakhs)**

by Family and friends around 10 lakhs for Computers and space.

Govt Source of Grant -No

Year of grant raised Nil

- **Did you raise any fund? : Yes/No**

yes, 5 lakhs by consultancy

- **Source of Fund ,**

Business with TSI, IIT Bombay, IIT Kanpur and Local companies of Kanpur

Amount of the fund raised (In Lakhs) **10 lakhs in total**

- Has the company arranged any debt funding?

No

- **Will you prefer Equity fund**

We can always discuss

Team

Dr. Kamal Poddar
Professor, Aerospace Engineering, IIT Kanpur
Mentor FlyingAVA Tech Pvt. Ltd

As professor of aerospace engineering at IIT Kanpur, is also the company's mentor. He has extensive management experience in R&D projects in aerodynamics. He is a well-known figure in aerospace engineering.

Dr. Apurva Kumari,

- **PhD , BITs Pilani,**
- **Associate Prof. BVRIT, Narsapur Hyderabad**
- **Co-founder , FLYINGAVA TECH PVT LTD**

She is highly experienced in image processing, signal Processing, VLSI design, sensor development and data acquisition using high end processing software. Her research interests include digital image and video processing.

Ashwani Anand

- **Founder of AVA Technology,**
- **Co- Founder, FlyingAva Tech Pvt. Ltd**

MBA (Finance and strategy) University of Technology, Sydney,

He also a back ground of software developer. He takes care of the sales , marketing and business growth in India and Australia.

Varun Singh
Founder, Director
FlyingAVA Tech Pvt. Ltd
M.Tech and B.Tech Mechanical engineering

He has 15 years of experience leading R&D projects for the aerospace engineering department of IIT Kanpur and MKU Limited, a Kanpur-based defense business. He assumed leadership of FlyingAVA Tech Pvt Ltd and built a team.

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Thank you.